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EXAMINER

SHIBRU, HELEN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/761,203	Applicant(s) FICCO ET AL.	
	Examiner HELEN SHIBRU	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 21-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/05/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. The amendments, filed 04/29/2008, have been entered and made of record. Claims 1-17 and 21-36 are pending and 18-20 are cancelled.

Response to Arguments

2. Applicant's arguments filed 04/29/2008 have been fully considered but they are not persuasive. See the reasons below and the Office Action.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant states "Pezzillo does not describe or suggest a remaining recording time out of disk space alert user setting." Applicant further states "Rather, Pezzillo merely suggests that a webcaster (not a user of a video receiver) can set (or enable) an alert to be sent when a low disk space condition is reached." Then Applicant states "Kikuchi is directed to an end-user video recording device that displays a message indicating that no recording space remains. In contrast, the cited portions of Pezzillo are directed to sending alerts to a webcaster."

In response the Examiner respectfully disagrees. Applicant attention is directed to Pezzillo's col. 13 lines 24-38 where Pezzillo states action button 706 provide access to the user to set alert conditions such as low disk space etc. In the same field of endeavor Kikuchi discloses MPU 30 displays a message of "remaining recordable time on the TV monitor. Therefore Pezzillo clearly teaches user setting an out of disk alert.

In response to applicant's argument that the cited references are directed to operations on different apparatus, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Pezzillo discloses user setting out of disk alert and Kikuchi teaches setting remaining recording time of the disk and display the remaining amount of the disk.

The claimed invention does in fact read on the cited references for at least the reasons discussed above and as stated in the detail Office Action as follows.

Claim Objections

3. Claim 22 is objected to because of the following informalities: Claim 22 is depending on the cancelled claim 18. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 17, 23-30, and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US Pat. No.6, 577, 811) in view of Pezzillo et al. (US Pat. No. 6,434,621).

Regarding claim 1, Kikuchi discloses an apparatus for displaying the status of a digital video recording device, comprising:

a receiver for receiving a broadband video signal from a provider (see figure 26);
a memory for storing a plurality of selectable status parameters (see col. 17 line 66-col. 18 line 9 and col. 45 lines 8-21) indicating functionality of the digital video recording device (see col. 29 lines 19-30 and fig. 26 microcomputer block (30)), wherein one of said plurality of selectable status parameters is a remaining recording time out of disk alert user setting (see col. 57 lines 35-63, fig. 34 ST14, fig. 60. see also col. 54 lines 7-41 and col. 61 line 61-col. 62 line 2, and col. 44 lines 24-30);
a processor for generating a display of the broadband video signal (see col. 51 line 66-col. 52 line 3 and also figure 26) and for controlling a display of said plurality of status parameters (see fig. 27, 58-59, 62 and 66) based on received commands to access said memory, so as to display at least a selected one of the plurality of status parameters (see col. 29 lines 19-36, col. 30 lines 23-41, col. 61 lines 19-31, col. 63 lines 10-19, and fig. 26 in microcomputer block (30) MPU).

Claim 1 differs from Kikuchi in that the claim further requires a user setting an out of disk space alert.

In the same field of endeavor Pezzillo discloses user setting low disk space alert conditions (see col. 6 lines 48-54 and col. 13 lines 34-38). Therefore in light of the teaching in Pezzillo it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikuchi's digital video recording device by providing an out of disk alert setting in order to cause an action.

Regarding claim 2, Kikuchi discloses the status display apparatus wherein an interface (remote control see fig. 28) enables a user to send said commands to display said selected status parameter via said processor (col. 63 lines 10-19).

Regarding claim 3, Kikuchi discloses the status display apparatus wherein said interface is selected from a remote control device, or from execution keys or buttons provided on the digital video recording device (see col. 31 lines 21-27 and in fig. 28 5tme and 5m).

Regarding claim 4, Kikuchi discloses the status display apparatus of wherein said memory and processor are contained within the digital video recording device (see col. 17 line 60-col. 18 line 9).

Regarding claim 5, Kikuchi discloses the status display apparatus wherein said processor controls display of a status menu for selection of at least one the plurality of status parameters (see fig. 27, 58-59, 62 and 66 and col. 17 line 66-col. 18 line 9) based on reception of a command to display the status menu by a user (see col. 29 lines 15-34).

Regarding claim 6, Kikuchi discloses the status display apparatus wherein the user manipulates keys of a remote control (see fig. 28 remote control) to transmit commands to said processor to display said status menu on a display device (see col. 44 lines 32-39) operatively connected to the digital video recording device, and further manipulates said remote control to graphically (menu) select a status parameter from said displayed status menu for display (see col. 44 lines 24-45).

Regarding claim 7, Kikuchi discloses the status display apparatus wherein a user manipulates designated keys or buttons of a remote control device, each designated key or button corresponding to each of said selectable plurality of status parameters (see col. 61 lines 19-29, col. 44 lines 11-19, and fig. 28 timer key (5tme) and display mode key (5dm)), and wherein the manipulated key or button causes the correspondingly selected status parameter to be displayed on a display device (see fig. 26 display of DVD recording (48) and fig. 33 monitor display (6)) operatively connected to the digital video recording device (see col. 39 lines 25-28 see fig. 26 display of DVD recording (48), fig. 27 main body (200), and fig. 33 monitor display (33)).

Regarding claim 17, Kikuchi discloses the status display apparatus wherein one of said plurality of selectable status parameters is notification indicating the approximate minutes of recording time still available while recording is in progress (see fig. 45 STEP 100 and col. 57 lines 30-39).

Regarding claim 23, Kikuchi discloses the status display wherein one of said plurality of selectable status parameters is a notification indicating the program length of a desired program

to record and the approximate minutes of recording time still available for recording (see fig. 49 step 50 and col. 61 line 61-col. 62 line 2).

Regarding claim 24, Kikuchi discloses notification is automatically displayed prior to or at the start of recording the desired program (see col. 61 line 15-18 and fig. 49 step 50).

Regarding claim 25, Kikuchi discloses notification is displayed as text message on a display device operatively connected to the digital video recording device (see fig. 49 step 50).

Regarding claim 26, Note to the Applicant: The USPTO considers the Applicant's "at least one of" language to be anticipated by any reference containing one of the subsequent corresponding elements. See figures 27, 58, 66, and 69.

Regarding claim 27, Kikuchi discloses a method of displaying the status of a digital video recording device on a display device operatively connected thereto, comprising:

receiving a broadband video signal from a provider (see figure 26);

storing a plurality of selectable status parameters indicating functionality of the digital video recording device within a memory of the digital video recording device (see col. 17 line 66-col. 18 line 9, col. 29 lines 19-30, col. 45 lines 8-21, and fig. 26 microcomputer block (30)), wherein one of said plurality of selectable status parameters is a remaining recording time out of disk alert user setting (see rejection of claim 1 above);

receiving commands to display at least a selected one of the plurality of status parameters; and

accessing said memory to display said broadband video signal (see col. 51 line 66-col. 52 line 3 and also figure 26) and to display selected one of the plurality of status parameters on the display device based on said received command (see fig. 27, 58-59, 62 and 66, col. 29 lines 19-36, col.

30 lines 23-41, col. 61 lines 19-31, col. 63 lines 10-19, and fig. 26 in microcomputer block (30) MPU).

Claim 27 differs from Kikuchi in that the claim further requires an out of disk space alert is received from the user.

In the same field of endeavor Pezzillo discloses user setting low disk space alert conditions (see col. 6 lines 48-54 and col. 13 lines 34-38). Therefore in light of the teaching in Pezzillo it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikuchi's digital video recording device by providing an out of disk alert setting in order to cause an action.

Regarding claims 28-30, the limitations of claims 28-30 can be found in claims 5-7 respectively. Therefore claims 28-30 are analyzed and rejected for the same reason as discussed in claims 5-7 respectively above.

Claim 32 are analyzed and rejected for the same reason as discussed in claim 1 above.

Claim 33 is analyzed and rejected for the same reason as discussed in claim 4 above.

Regarding claim 34, Kikuchi discloses displaying an out of disk space alert when an available recording capacity is less than or equal to the out of disk alert user setting (see rejection of claim 1 above).

Regarding claim 35, Kikuchi discloses the out of disk space alert user setting includes two or more values at which an out of disk space alert should be presented (see figures 58-62 and col. 57-col. 59 line 58. See also rejection of claim 1).

Regarding claim 36, Kikuchi discloses receive a request to record a television program (see figure 34 ST20 and figure 53);

compare an amount of available disk storage space to an amount of time needed to record the program to determine a remaining disk storage space (see figures 34 and 44);

compare the remaining disk storage space to the disk space alert user setting (see figures 43 and 44); and display an out of disk space alert based on the comparison (see figure 42 ST425E, and figure 45 ST100). See also claim 1 rejection above.

6. Claims 8, 13, 22, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Pezzillo and further in view of Official Notice.

Regarding claim 8, the proposed combination indicated in the above rejection of claim 1 discloses operational control keys provided on the DVR (see fig. 27 in Kikuchi). However the proposed combination fails to specifically teach the keys are designated to select plurality of status parameters, and wherein the manipulated key or button causes the correspondingly selected status parameter to be displayed on a display device operatively connected to the digital recording device. Official Notice is taken that it is well known in the art to provide keys or buttons on DVR that causes to display the status of the parameters on the display device (see col. 30 lines 52-56 and col. 31 lines 21-27 in Kikuchi). Therefore it would have been obvious to one of ordinary skill in the art to include keys or buttons on the DVR as taught in the proposed combination in order to use the DVR as a control unit, rather than using only the remote control.

Regarding claim 13, claim 13 differs from Kikuchi in that the claim further requires the status display apparatus wherein one of said plurality of selectable status parameters is a disk gas gauge feature indicating how much of a mass storage device operatively connected to the digital video recording device is consumed by recorded material. Official Notice is taken that it is well known in the art to indicate how much of the mass storage device is consumed by recorded

material. Therefore, it would have been obvious to one of ordinary skill in the art to include disc gas gage feature indicating the amount of storage area available in order to warn the user in advance.

Regarding claim 22, Kikuchi discloses out-of-disk space alert has a video component (see fig. 58 and rejection of claim 1 above). Kikuchi fail to disclose out-of-disk space alert has an audio component. Official notice is taken that it is well known in the art to incorporate video with audio component. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an audio component in the DVR of Kikuchi in order to alert the user who is away from the display device.

Claim 31 is rejected for the same reason as discussed in claim 8 above.

7. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view Pezzillo and further in view of Official Notice and Paulus (US Pat. No.6.678.757).

Regarding claim 14, claim 14 differs from the above combination in that the claim further requires the disc gas gage feature is displayed in at least one of icon, pie-chart and bar-graph form and indicated the percent of the mass storage device capacity is used, and/or unused. Kikuchi fails to specify that the plurality of selectable status parameters is a disk gas gage feature, however Kikuchi discloses if the user presses end key send in the remote controller, the MPU checks the remaining amount of the storage (see col. 63 lines 10-19, fig. 47 Step 138, and fig. 69).

In the same field of endeavor Paulus discloses a memory meter in the form of bar graph (see col. 4 lines 34-36). Paulus further discloses the graph indicates the remaining and available area of the memory (see col. 4 lines 36-56 and fig. 2). Therefore, in light of the teaching in

Paulus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the proposed combination by providing a bar graph in order to indicate the state of a memory (see col. 1 lines 41-45 of Paulus).

Regarding claim 15, Note to the Applicant: The USPTO considers the Applicant's "at least one of" language to be anticipated by any reference containing one of the subsequent corresponding elements. The limitation of claim 15 includes a disk gas gauge feature is displayed in an icon form. Therefore claim 15 is analyzed and rejected for the same reason as discussed in claims 13 and 21.

Regarding claim 16, Kikuchi discloses the status display apparatus wherein said mass storage device is selected from the group comprising at least a hard disk drive, a magnetic storage device and an optical storage device (see col. 8 lines 37-49, col. 46 lines 30-35, optical storage devices are magnetic).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Pezzillo and further in view of Fukushima (US Pat. No. 6,584,272).

Regarding claim 21, claim 21 differs from the proposed combination in that the claim further requires notification indicating the approximate minutes of recording time still available is displayed as an animated icon on a display device operatively connected to the digital video recording device. However, Kikuchi does disclose the remaining time available are displayed on both DVR and the monitor (see fig. 27 and REC TIME/ REMAIN TIME (48), fig. 45 Step 100, and fig. 58 recordable time, and col. 57 lines 30-39).

In the same field of endeavor Fukushima discloses the remaining allowable recording time displayed as a rectangular icon (see fig. 11 item (1102) and col. 13 lines 48-59). Further

Fukushima discloses the remaining allowable recording time is displayed while recording is in progress (see fig. 11 REC (inside 1101) and col. 13 lines 38-44). Therefore it would have been obvious to one of ordinary skill in the art to include an animated icon in the DVR of Kikuchi showing the recording time available in order to check the available space on the disc easily at a variable rate (see col. 13 lines 56-59 of Fukushima).

9. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US Pat. No. 6, 577, 811) in view of Pezzillo and further in view of Pijnenburg (US Pat. No. 6, 169,842).

Regarding claim 9, claim 9 differs from the proposed combination in that the claim further requires one of the plurality of-selectable status parameter is a current delay feature which displays how far a recording is behind a live-broadcast that is-in progress when a signal corresponding it to live broadcast in paused.

In the same field of endeavor Pijnenburg discloses simultaneous recording and reproduction system. Pijnenburg teaches a current delay feature which displays how far a recording is behind a live-broadcast that is-in progress when a signal corresponding it to live broadcast in paused (see col. 3 line 53- col. 4 line 67). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikuchi by including a system that displays how far a recording is behind a live-broadcast as thought by Pijnenburg in order to simultaneously reproduce, from the moment of being away, and record the signal.

Regarding claim 10, Note to the Applicant: The USPTO considers the Applicant's "at least one of" language to be anticipated by any reference containing one of the subsequent

corresponding elements. Therefore the limitation of claim 10 is analyzed and rejected for the same reason as discussed in claims 9 and 27 above.

10. Claims 11 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Pezzillo and further in view of in view of TIVO manual for HDR110.

Regarding claim 11, claim 11 differs from the proposed combination in that the claim further requires one of the plurality of selectable status parameters is a live/recorded status feature that displays whether a program being viewed is either live or recorded.

In the same field of endeavor the TIVO manual for HDR110 discloses a status bar at the bottom of the display screen. The manual further discloses the bar is colored to indicate the recorded portion, and the live (see page 10-11). Therefore in light of the teaching in TIVO manual for HDR110, it would have been obvious to modify Kikuchi by providing a live/recorded status feature in order to help the viewer to keep track of the program.

For alternative analysis of claim 26, claim 26 is rejected again for the same reason as discussed in claim 11 above.

11. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view in view of TIVO manual for HDR110 and further in view of Official Notice.

Regarding claim 12, claim 12 differ from the proposed combinations in that the claim further requires the word "LIVE" or "RECORDED" is displayed in flashing form for a finite period of time, depending on the status of the program being viewed. Official Notice is taken that it is well known in the art to provide words in flashing form to indicate the current status of the program being viewed. Therefore, it would have been obvious to one of ordinary skill in the art

to modify the teaching of Kikuchi and the TIVO manual by displaying a word “LIVE” or “RECORD” in order to keep the user informed about the signal being transmitted.

12. Claims 1-7, 17, 21, 23-30, and 32-36 rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US Pat. No. 6,577,811) in view of Fukushima (US Pat. No. 6,584,272).

Regarding claim 1, Kikuchi discloses an apparatus for displaying the status of a digital video recording device, comprising:

a receiver for receiving a broadband video signal from a provider (see figure 26);
a memory for storing a plurality of selectable status parameters (see col. 17 line 66-col. 18 line 9 and col. 45 lines 8-21) indicating functionality of the digital video recording device (see col. 29 lines 19-30 and fig. 26 microcomputer block (30)), wherein one of said plurality of selectable status parameters is a remaining recording time out of disk alert user setting (see col. 57 lines 35-63, fig. 34 ST14, fig. 60. see also col. 54 lines 7-41 and col. 61 line 61-col. 62 line 2, and col. 44 lines 24-30);

a processor for generating a display of the broadband video signal (see col. 51 line 66-col. 52 line 3 and also figure 26) and for controlling a display of said plurality of status parameters (see fig. 27, 58-59, 62 and 66) based on received commands to access said memory, so as to display at least a selected one of the plurality of status parameters (see col. 29 lines 19-36, col. 30 lines 23-41, col. 61 lines 19-31, col. 63 lines 10-19, and fig. 26 in microcomputer block (30) MPU).

Claim 1 differs from Kikuchi in that the claim further requires a user setting an out of disk space alert.

In the same field of endeavor Fukushima discloses user setup allowable recording time period on a disc and remaining capacity of the disc (see abstract, col. 5 lines 17-64, col. 6 lines 31-38, col. 6 lines 43-col. 7 line 25, col. 13 lines 25-33, figure 2 component 204, and figure 11). See also Fukushima's claims 1 and 3 where it recites setup conditions are specified through input means and indicating the calculated allowable recording time period and the determined recording conditions. Therefore in light of the teaching in Fukushima it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikuchi by allowing a user to setup a remaining recording time out of disk space alert in order to indicate an information to a user incase the amount of data to be recorded is varied.

Regarding claim 2, Kikuchi discloses the status display apparatus wherein an interface (remote control see fig. 28) enables a user to send said commands to display said selected status parameter via said processor (col. 63 lines 10-19).

Regarding claim 3, Kikuchi discloses the status display apparatus wherein said interface is selected from a remote control device, or from execution keys or buttons provided on the digital video recording device (see col. 31 lines 21-27 and in fig. 28 5tme and 5m).

Regarding claim 4, Kikuchi discloses the status display apparatus of wherein said memory and processor are contained within the digital video recording device (see col. 17 line 60-col. 18 line 9).

Regarding claim 5, Kikuchi discloses the status display apparatus wherein said processor controls display of a status menu for selection of at least one the plurality of status parameters

(see fig. 27, 58-59, 62 and 66 and col. 17 line 66-col. 18 line 9) based on reception of a command to display the status menu by a user (see col. 29 lines 15-34).

Regarding claim 6, Kikuchi discloses the status display apparatus wherein the user manipulates keys of a remote control (see fig. 28 remote control) to transmit commands to said processor to display said status menu on a display device (see col. 44 lines 32-39) operatively connected to the digital video recording device, and further manipulates said remote control to graphically (menu) select a status parameter from said displayed status menu for display (see col. 44 lines 24-45).

Regarding claim 7, Kikuchi discloses the status display apparatus wherein a user manipulates designated keys or buttons of a remote control device, each designated key or button corresponding to each of said selectable plurality of status parameters (see col. 61 lines 19-29, col. 44 lines 11-19, and fig. 28 timer key (5tme) and display mode key (5dm)), and wherein the manipulated key or button causes the correspondingly selected status parameter to be displayed on a display device (see fig. 26 display of DVD recording (48) and fig. 33 monitor display (6)) operatively connected to the digital video recording device (see col. 39 lines 25-28 see fig. 26 display of DVD recording (48), fig. 27 main body (200), and fig. 33 monitor display (33)).

Regarding claim 17, Kikuchi discloses the status display apparatus wherein one of said plurality of selectable status parameters is notification indicating the approximate minutes of recording time still available while recording is in progress (see fig. 45 STEP 100 and col. 57 lines 30-39).

Regarding claim 21, Fukushima discloses the remaining allowable recording time displayed as a rectangular icon (see fig. 11 item (1102) and col. 13 lines 48-59). Further Fukushima discloses the remaining allowable recording time is displayed while recording is in progress (see fig. 11 REC (inside 1101) and col. 13 lines 38-44).

Regarding claim 23, Kikuchi discloses the status display wherein one of said plurality of selectable status parameters is a notification indicating the program length of a desired program to record and the approximate minutes of recording time still available for recording (see fig. 49 step 50 and col. 61 line 61-col. 62 line 2).

Regarding claim 24, Kikuchi discloses notification is automatically displayed prior to or at the start of recording the desired program (see col. 61 line 15-18 and fig. 49 step 50).

Regarding claim 25, Kikuchi discloses notification is displayed as text message on a display device operatively connected to the digital video recording device (see fig. 49 step 50).

Regarding claim 26, Note to the Applicant: The USPTO considers the Applicant's "at least one of" language to be anticipated by any reference containing one of the subsequent corresponding elements. See figures 27, 58, 66, and 69.

Regarding claim 27, Kikuchi discloses a method of displaying the status of a digital video recording device on a display device operatively connected thereto, comprising:
receiving a broadband video signal from a provider (see figure 26);
storing a plurality of selectable status parameters indicating functionality of the digital video recording device within a memory of the digital video recording device (see col. 17 line 66-col. 18 line 9, col. 29 lines 19-30, col. 45 lines 8-21, and fig. 26 microcomputer block (30)), wherein

one of said plurality of selectable status parameters is a remaining recording time out of disk alert user setting (see rejection of claim 1 above);
receiving commands to display at least a selected one of the plurality of status parameters; and
accessing said memory to display said broadband video signal (see col. 51 line 66-col. 52 line 3 and also figure 26) and to display selected one of the plurality of status parameters on the display device based on said received command (see fig. 27, 58-59, 62 and 66, col. 29 lines 19-36, col. 30 lines 23-41, col. 61 lines 19-31, col. 63 lines 10-19, and fig. 26 in microcomputer block (30) MPU).

Claim 27 differs from Kikuchi in that the claim further requires an out of disk space alert is received from the user.

In the same field of endeavor Fukushima discloses user setup allowable recording time period on a disc and remaining capacity of the disc (see abstract, col. 5 lines 17-64, col. 6 lines 31-38, col. 6 lines 43-col. 7 line 25, col. 13 lines 25-33, figure 2 component 204, and figure 11). See also Fukushima's claims 1 and 3 where it recites setup conditions are specified through input means and indicating the calculated allowable recording time period and the determined recording conditions. Therefore in light of the teaching in Fukushima it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikuchi by allowing a user to setup a remaining recording time out of disk space alert in order to indicate an information to a user incase the amount of data to be recorded is varied.

Regarding claims 28-30, the limitations of claims 28-30 can be found in claims 5-7 respectively. Therefore claims 28-30 are analyzed and rejected for the same reason as discussed in claims 5-7 respectively above.

Claim 32 are analyzed and rejected for the same reason as discussed in claim 1 above.

Claim 33 is analyzed and rejected for the same reason as discussed in claim 4 above.

Regarding claim 34, Kikuchi discloses displaying an out of disk space alert when an available recording capacity is less than or equal to the out of disk alert user setting (see rejection of claim 1 above).

Regarding claim 35, Kikuchi discloses the out of disk space alert user setting includes two or more values at which an out of disk space alert should be presented (see figures 58-62 and col. 57-col. 59 line 58. See also rejection of claim 1).

Regarding claim 36, Kikuchi discloses receive a request to record a television program (see figure 34 ST20 and figure 53);

compare an amount of available disk storage space to an amount of time needed to record the program to determine a remaining disk storage space (see figures 34 and 44);

compare the remaining disk storage space to the disk space alert user setting (see figures 43 and 44); and display an out of disk space alert based on the comparison (see figure 42 ST425E, and figure 45 ST100). See also claim 1 rejection above.

13. Claims 8, 13, 22, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Fukushima and further in view of Official Notice.

Regarding claim 8, the proposed combination indicated in the above rejection of claim 1 discloses operational control keys provided on the DVR (see fig. 27 in Kikuchi). However the proposed combination fails to specifically teach the keys are designated to select plurality of status parameters, and wherein the manipulated key or button causes the correspondingly selected status parameter to be displayed on a display device operatively connected to the digital

recording device. Official Notice is taken that it is well known in the art to provide keys or buttons on DVR that causes to display the status of the parameters on the display device (see col. 30 lines 52-56 and col. 31 lines 21-27 in Kikuchi). Therefore it would have been obvious to one of ordinary skill in the art to include keys or buttons on the DVR as taught in the proposed combination in order to use the DVR as a control unit, rather than using only the remote control.

Regarding claim 13, claim 13 differs from Kikuchi in that the claim further requires the status display apparatus wherein one of said plurality of selectable status parameters is a disk gas gauge feature indicating how much of a mass storage device operatively connected to the digital video recording device is consumed by recorded material. Official Notice is taken that it is well known in the art to indicate how much of the mass storage device is consumed by recorded material. Therefore, it would have been obvious to one of ordinary skill in the art to include disc gas gage feature indicating the amount of storage area available in order to warn the user in advance.

Regarding claim 22, Kikuchi discloses out-of-disk space alert has a video component (see fig. 58 and rejection of claim 1 above). Kikuchi fail to disclose out-of-disk space alert has an audio component. Official notice is taken that it is well known in the art to incorporate video with audio component. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an audio component in the DVR of Kikuchi in order to alert the user who is away from the display device.

Claim 31 is rejected for the same reason as discussed in claim 8 above.

14. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view Fukushima and further in view of Official Notice and Paulus (US Pat. No.6,678,757).

Regarding claim 14, claim 14 differs from the above combination in that the claim further requires the disk gas gage feature is displayed in at least one of icon, pie-chart and bar-graph form and indicated the percent of the mass storage device capacity is used, and/or unused. Kikuchi fails to specify that the plurality of selectable status parameters is a disk gas gage feature, however Kikuchi discloses if the user presses end key send in the remote controller, the MPU checks the remaining amount of the storage (see col. 63 lines 10-19, fig. 47 Step 138, and fig. 69).

In the same field of endeavor Paulus discloses a memory meter in the form of bar graph (see col. 4 lines 34-36). Paulus further discloses the graph indicates the remaining and available area of the memory (see col. 4 lines 36-56 and fig. 2). Therefore, in light of the teaching in Paulus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the proposed combination by providing a bar graph in order to indicate the state of a memory (see col. 1 lines 41-45 of Paulus).

Regarding claim 15, Note to the Applicant: The USPTO considers the Applicant's "at least one of" language to be anticipated by any reference containing one of the subsequent corresponding elements. The limitation of claim 15 includes a disk gas gauge feature is displayed in an icon form. Therefore claim 15 is analyzed and rejected for the same reason as discussed in claims 13 and 21.

Regarding claim 16, Kikuchi discloses the status display apparatus wherein said mass storage device is selected from the group comprising at least a hard disk drive, a magnetic storage device and an optical storage device (see col. 8 lines 37-49, col. 46 lines 30-35, optical storage devices are magnetic).

15. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US Pat. No. 6, 577, 811) in view of Fukushima and further in view of Pijnenburg (US Pat. No. 6, 169,842).

Regarding claim 9, claim 9 differs from the proposed combination in that the claim further requires one of the plurality of-selectable status parameter is a current delay feature which displays how far a recording is behind a live-broadcast that is-in progress when a signal corresponding it to live broadcast in paused.

In the same field of endeavor Pijnenburg discloses simultaneous recording and reproduction system. Pijnenburg teaches a current delay feature which displays how far a recording is behind a live-broadcast that is-in progress when a signal corresponding it to live broadcast in paused (see col. 3 line 53- col. 4 line 67). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikuchi by including a system that displays how far a recording is behind a live-broadcast as thought by Pijnenburg in order to simultaneously reproduce, from the moment of being away, and record the signal.

Regarding claim 10, Note to the Applicant: The USPTO considers the Applicant's "at least one of" language to be anticipated by any reference containing one of the subsequent corresponding elements. Therefore the limitation of claim 10 is analyzed and rejected for the same reason as discussed in claims 9 and 27 above.

16. Claims 11 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Fukushima and further in view of in view of TIVO manual for HDR110.

Regarding claim 11, claim 11 differs from the proposed combination in that the claim further requires one of the plurality of selectable status parameters is a live/recorded status feature that displays whether a program being viewed is either live or recorded.

In the same field of endeavor the TIVO manual for HDR110 discloses a status bar at the bottom of the display screen. The manual further discloses the bar is colored to indicate the recorded portion, and the live (see page 10-11). Therefore in light of the teaching in TIVO manual for HDR110, it would have been obvious to modify Kikuchi by providing a live/recorded status feature in order to help the viewer to keep track of the program.

For alternative analysis of claim 26, claim 26 is rejected again for the same reason as discussed in claim 11 above.

17. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view in view of Fukushima and further in view of TIVO manual for HDR110 and Official Notice.

Regarding claim 12, claim 12 differ from the proposed combinations in that the claim further requires the word "LIVE" or "RECORDED" is displayed in flashing form for a finite period of time, depending on the status of the program being viewed. Official Notice is taken that it is well known in the art to provide words in flashing form to indicate the current status of the program being viewed. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teaching of Kikuchi and the TIVO manual by displaying a word "LIVE" or "RECORD" in order to keep the user informed about the signal being transmitted.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571)272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Application/Control Number: 09/761,203
Art Unit: 2621

Page 25

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